

LECTURE 18

Types of field Compaction Equipment:

1. Smooth Wheeled Steel Drum Rollers
2. Pneumatic Tyred Rollers
3. Sheepsfoot Rollers
4. Impact Rollers
5. Vibrating Rollers
6. Hand Operated vibrating plate & rammer compactors

Smooth wheeled steel drum rollers

1. Capacity 20 kN to 200 kN
2. Self propelled or towed
3. Suitable for well graded sand, gravel, silt of low plasticity
4. Unsuitable for uniform sand, silty sand and soft clay



Pneumatic Tyred Rollers

1. Usually two axles carrying rubber tyred wheels for full width of track.
2. Dead load (water) is added to give a weight of 100 to 400 kN.
3. Suitable for most coarse & fine soils
4. Unsuitable for very soft clay and highly variable soil.



Sheepsfoot Roller

1. Self propelled or towed
2. Drum fitted with projecting club shaped feet to provide kneading action.
3. Weight of 50 to 80 kN
4. Suitable for fine grained soil, sand & gravel with considerable fines.

